# **Complete Summary**

#### **GUIDELINE TITLE**

Atherosclerosis.

## BIBLIOGRAPHIC SOURCE(S)

Atherosclerosis. Philadelphia (PA): Intracorp; 2004. Various p.

## **GUIDELINE STATUS**

This is the current release of the guideline.

IDENTIFYING INFORMATION AND AVAILABILITY

All Intracorp guidelines are reviewed annually and updated as necessary, but no less frequently than every 2 years. This guideline is effective from January 1, 2004 to January 1, 2006.

## **COMPLETE SUMMARY CONTENT**

SCOPE

METHODOLOGY - including Rating Scheme and Cost Analysis RECOMMENDATIONS
EVIDENCE SUPPORTING THE RECOMMENDATIONS
BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS IMPLEMENTATION OF THE GUIDELINE
INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

#### SCOPE

## DISEASE/CONDITION(S)

Atherosclerosis

#### **GUIDELINE CATEGORY**

Diagnosis Evaluation Management Risk Assessment Treatment

CLINICAL SPECIALTY

Cardiology
Family Practice
Internal Medicine
Physical Medicine and Rehabilitation
Thoracic Surgery

#### INTENDED USERS

Allied Health Personnel
Health Care Providers
Health Plans
Hospitals
Managed Care Organizations
Utilization Management

## GUIDELINE OBJECTIVE(S)

To present recommendations for the diagnosis, treatment, and management of atherosclerosis that will assist medical management leaders to make appropriate benefit coverage determinations

#### TARGET POPULATION

Individuals with atherosclerosis

## INTERVENTIONS AND PRACTICES CONSIDERED

#### Diagnosis/Evaluation

- 1. Physical examination and assessment of signs and symptoms
- 2. Diagnostic tests
  - Noninvasive evaluation
    - Cholesterol and blood glucose levels
    - Digital pulse volume recordings
    - Doppler flow velocity analysis
    - Duplex ultrasonography
    - Segmental pressure measurements
    - Exercise-tolerance testing
    - Electrocardiogram
  - Invasive evaluation
    - Arteriography
    - Aortography

#### Treatment/Management

- 1. Treatment of underlying disorders, such as diabetes mellitus and hypothyroidism
- 2. Behavior modification
  - Dietary adjustment
  - Discontinuation of exacerbating drugs
  - Smoking cessation

- Weight loss (exercise and physical activities)
- Skin care
- 3. Medication including
  - Lipid-lowering medication
  - Antihypertensive agents
  - Aspirin
  - Anticoagulation therapy
- 4. Revascularization
  - Percutaneous transluminal angioplasty
  - Laser angioplasty
  - Atherectomy
  - Stent placement
  - Bypass procedures
  - Endarterectomy

#### MAJOR OUTCOMES CONSIDERED

Efficacy of treatment of underlying disorders and elimination of risk factors on disease progression

## METHODOLOGY

## METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Primary Sources)
Hand-searches of Published Literature (Secondary Sources)
Searches of Electronic Databases

# DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Searches were performed of the following resources: reviews by independent medical technology assessment vendors (such as the Cochrane Library, HAYES); PubMed; MD Consult; the Centers for Disease Control and Prevention (CDC); the U.S. Food and Drug Administration (FDA); professional society position statements and recommended guidelines; peer reviewed medical and technology publications and journals; medical journals by specialty; National Library of Medicine; Agency for Healthcare Research and Quality; Centers for Medicare and Medicaid Services; and Federal and State Jurisdictional mandates.

## NUMBER OF SOURCE DOCUMENTS

Not stated

# METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Not Given)

## RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not stated

## METHODS USED TO ANALYZE THE EVIDENCE

Review

#### DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

#### METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus (Delphi)

# DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

A draft Clinical Resource Tool (CRT or guideline) is prepared by a primary researcher and presented to the Medical Technology Assessment Committee.

The Medical Technology Assessment Committee is the governing body for the assessment of emerging and evolving technology. The Committee is comprised of a Medical Technology Assessment Medical Director, the Benefit and Coverage Medical Director, CIGNA Pharmacy, physicians from across the enterprise, the Clinical Resource Unit staff, Legal Department, Operations, and Quality.

Revisions are suggested and considered. A vote is taken for acceptance or denial of the CRT.

## RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

#### **COST ANALYSIS**

A formal cost analysis was not performed and published cost analyses were not reviewed.

## METHOD OF GUIDELINE VALIDATION

Comparison with Guidelines from Other Groups Internal Peer Review

# DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Not stated

## RECOMMENDATIONS

#### MAJOR RECOMMENDATIONS

## Diagnostic Confirmation

#### Subjective Findings

NOTE: Symptoms are usually absent until the disease has reached advanced stages and usually depends on what part of the body has decreased blood flow.

- Muscle cramps, especially in the calves, when the vessels in the legs are affected
- Chest pain when the vessels in the heart are affected
- Numbness
- Dizziness, especially upon arising from sitting or lying
- Inability to keep fingers and toes warm
- Pounding pulse
- Impotence in men

## Objective Findings

NOTE: Symptoms are usually absent until the disease reached advanced stages and usually depend on what part of the body has decreased blood flow

- Absent or diminished distal pulses (e.g., femoral, popliteal, dorsalis pedis, or posterior tibial)
- Transient ischemic attack (TIA) when the vessels in the neck and/or brain are affected
- Bruits along the vessels
- Atrophic or shiny skin
- Hair loss
- Muscle atrophy
- Coolness of skin
- Color changes in the skin: pallor on elevation and rubor on dependency
- Ulcers or gangrene
- Peripheral edema
- Altered findings in neurovascular examination in legs and feet
- Hyperreflexia

## Diagnostic Tests

- Noninvasive evaluation
  - Blood studies of cholesterol and blood glucose levels
  - Digital pulse volume recordings
  - Doppler flow velocity waveform analysis
  - Duplex ultrasonography
  - Segmental pressure measurements
  - Exercise-tolerance testing
  - Electrocardiogram (ECG)
- Invasive evaluation

- Arteriography
- Aortography

## Differential Diagnosis

- Embolic disease
- Syphilitic aortitis
- Rheumatic aortitis
- Takayasu's arteritis
- Giant cell arteritis
- Aortic dissection
- System Lupus Erythematosus
- Fibromuscular dysplasia: generally affects the renal and carotid arteries, but may involve the iliac arteries
- Buerger's disease: thromboangiitis obliterans

#### **Treatment Options**

- Treatment of underlying disorders (e.g., diabetes mellitus, hypothyroidism)
- Behavior modification
  - Dietary adjustment: decrease total caloric intake, saturated fats, cholesterol and alcohol consumption
  - Consider discontinuation of exacerbating medications (e.g., oral contraceptives, glucocorticoids, beta-blockers, diuretics)
  - Smoking cessation
  - Encourage exercise and physical activities for reduction and maintaining weight loss
  - Meticulous care of the skin, especially the extremities
- Medication
  - Treat any hyperlipidemic state
  - Treat any hypertension
  - Consider platelet inhibition with aspirin
  - Consider anticoagulation therapy
- Revascularization
  - Percutaneous transluminal angioplasty
  - Laser angioplasty
  - Atherectomy
  - Stent placement
  - Bypass procedures
  - Endarterectomy

#### **Duration of Medical Treatment**

- Medical optimal: 14 days
  - May require care for lifetime
- Surgical optimal: 17 days; maximal: 90 days

Additional provider information regarding primary care visit schedules, referral options, frequency and duration of specialty care, physical therapy, and durable medical equipment is provided in the original guideline document.

The original guideline document also provides a list of red flags that may affect disability duration and return to work goals, including

- Resolving symptoms of claudication and/or healing lower extremity ulcerations (nonsurgical)
- After successful revascularization via bypass
- After successful revascularization via stent or angioplasty
- After confirmation of progressive disease unresponsive to treatment

## CLINICAL ALGORITHM(S)

None provided

## EVIDENCE SUPPORTING THE RECOMMENDATIONS

#### TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is not specifically stated for each recommendation.

## BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

#### POTENTIAL BENEFITS

General Potential Benefits

Appropriate diagnosis, treatment, and management of atherosclerosis that assist medical management leaders in making appropriate benefit coverage determinations

Specific Potential Benefits

Treatment of underlying disorders and elimination of risk factors can help delay progression of the disease.

## POTENTIAL HARMS

Not stated

## IMPLEMENTATION OF THE GUIDELINE

#### DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

# INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

**IOM CARE NEED** 

Living with Illness

IOM DOMAIN

Effectiveness

## IDENTIFYING INFORMATION AND AVAILABILITY

## BIBLIOGRAPHIC SOURCE(S)

Atherosclerosis. Philadelphia (PA): Intracorp; 2004. Various p.

**ADAPTATION** 

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

1997 (revised 2004)

GUI DELI NE DEVELOPER(S)

Intracorp - Public For Profit Organization

SOURCE(S) OF FUNDING

Intracorp

**GUI DELI NE COMMITTEE** 

CIGNA Clinical Resources Unit (CRU)
Medical Technology Assessment Committee (MTAC)

## COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

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#### FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

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# GUIDELINE AVAILABILITY

Electronic copies: Intracorp guidelines are available for a licensing fee via a password protected, secure Web site at <a href="https://www.intracorp.com">www.intracorp.com</a>.

#### AVAILABILITY OF COMPANION DOCUMENTS

The following is available:

 Policies and procedures. Medical Technology Assessment Committee Review Process. Philadelphia (PA): Intracorp; 2004. 4 p.

Print copies: Available from Intracorp, 523 Plymouth Road, Plymouth Meeting, PA, 19462; Phone: (610) 834-0160

#### PATIENT RESOURCES

None available

#### NGC STATUS

This NGC summary was completed by ECRI on November 23, 2004. The information was verified by the guideline developer on December 8, 2004.

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